INTERPRETIVE EVOLUTION OF THE WILDERNESS ACT

THE IMPLICATIONS OF CHANGE

by

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A RESEARCH PAPER

submitted to

THE DEPARTMENT OF GEOGRAPHY

in partial fulfillment of
the requirements for the
degree of

MASTER OF SCIENCE

March 1982

Directed by

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TABLE OF CONTENTS

Introduction..... 1

The Wilderness Act:

Background..... 3

Administrative Protection..... 4

Statutory Protection..... 5

Wilderness Defined..... 6

The 'Purity Argument' and Wilderness Suitability..... 8

The Eastern Wilderness Act: Suitability Defined..... 11

The Endangered American Wilderness Act:
Management Defined..... 13

Other Legislation..... 17

Grazing..... 18

Mining..... 20

Structures..... 23

Motorized and Mechanical Transport..... 25

Fire..... 26

Conclusions: The Direction of Management..... 28

Figure 1 35

Bibliography..... 36

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ABSTRACT. Compromises required for the passage of the Wilderness Act (1964) created inherent conflicts in the designation and administration of wilderness areas. Subsequent legislation helped to more firmly interpret and define the Act. Attendant policy changes suggest a trend to increase the recreational and economic utility of wilderness. Policy changes also indicate a greater tolerance for the works of man within wilderness, affirm that perception of wilderness is as important as it's substance, and imply wilderness is a renewable resource.

INTRODUCTION

The 1964 Wilderness Act, creating the National Wilderness Preservation System, is a document which begs interpretation. Much of the language and many of the provisions of the Act resulted from compromises between competing interest groups; some favored strict preservation, while others regarded resource development as necessary. Due to the incompatability of these goals, the administration of wilderness areas was confused. With the nebulous direction provided in the Act, policy decisions were discretionary, and widely contested. Since 1964, a variety of wilderness related legislative actions, and especially the hearing reports which accompanied them, have redefined the Wilderness Act to make it's intent more explicit.

This paper examines the Wilderness Act from it's conceptual inception, discusses it's ambiguities, and explores the changing legal definition of wilderness and its implications for management.

THE WILDERNESS ACT

On September 3, 1964 President Johnson signed the Wilderness Act, creating the National Wilderness Preservation System (NWPS). The President's signature marked the culmination of efforts, spanning forty years, by wilderness proponents to establish a wilderness system protected by law.

Background. Among the first voices to sing the praises of preserving wild lands in their natural condition were those belonging to Arthur Carhart and Aldo Leopold. In 1919 Carhart, a Forest Service landscape architect, was sent to Trappers Lake in Colorado with the assignment to survey the area for road access and vacation home sites. Instead of survey results, Carhart handed his superiors a recommendation that Trappers Lake remain undeveloped because its pristine quality was becoming a rarity in the American West (Nash 1973). The Denver office of the Forest Service approved this recommendation and Trappers Lake was left alone.

In the Southwest, Aldo Leopold, also a Forest Service employee, was becoming concerned about the disappearance of large roadless areas in Arizona and New Mexico. He began to push for the idea that lands be set aside, preserved in a natural state, and "kept devoid of roads, artificial trails, cottages, or other works of man" (Leopold 1921).

Largely through the efforts of these two men, the first federal reserve for wilderness, 574,000 acres of the Gila National Forest in

New Mexico, was established in 1924. The Gila wilderness resulted from an administrative designation, yet no policy guidelines were formulated to direct its management, or afford it much protection (Nash 1973).

Administrative Protection. Over the next few years, other Forest Service lands were set aside as wilderness and the need arose for systematic planning to protect these lands. In 1929, largely at the urging of Aldo Leopold, the Forest Service issued the L-20 Regulations. The Chief of the Forest Service was authorized to establish "primitive areas" to be managed so as to maintain their "primitive conditions" with the intent of "conserving the value of such areas for purposes of public education and recreation" (ORRRC 1962). Still, the L-20 Regulations permitted almost all the commercial activities allowed on National Forest lands (Hendee et al. 1977).

Because they offered no real protection for "primitive lands" the L-20 Regulations were superseded by the U Regulations in 1939. Bob Marshall, then Chief of the Forest Service Division of Recreation and Lands, was instrumental in formulating the U Regulations which designated "wilderness" and "wild" areas and decreed that there would be "no roads or other provision for motorized transportation", no lumbering, hotels, permanent camps, or lodges within areas so classified (Ibid).

Because both the L-20 and U-Regulations were administrative designations, the protection afforded to lands managed under their provisions could be removed with a wave of an administrator's wand.

It became apparent that to insure a lasting system of wilderness, statutory protection was required.

Statutory Protection. The leader of the drive to establish a legislatively protected wilderness system was Howard Zahniser, Executive Director of the Wilderness Society. In 1955 Zahniser, along with other conservation leaders, prepared a draft bill with the four fold purpose to:

1) provide clear statutory authority for the maintenance of wilderness areas;

2) remove administrative authority of Forest Service officials to decrease the size or declassify wilderness areas;

3) protect national forest wilderness areas against mining and the installation of water projects; and

4) require the designation of wilderness zones in units of the National Park system, Federal Wildlife Refuge and Range system, and within Indian reservations (McCloskey 1966).

The first wilderness bill was introduced to the Senate, in 1956, by Hubert Humphrey. Had this bill passed it would have prohibited lumbering, prospecting, dams, commercial enterprises, roads, motor vehicles, the landing of aircraft, motorboating, mining, and grazing, except where these uses had already been established (Hendee et al. 1977). However, this bill did not pass, nor did any of the 64 variations of the wilderness bill introduced to Congress over the next eight years. These bills were staunchly opposed by commodity interest groups which contended that the wilderness bill conflicted with the multiple-use concept of public land management (Nash 1973). In the face of this opposition, it became clear to proponents that major

compromises would have to be made with commodity interests if the bill was ever to become law.

The 1964 Act reflects these concessions to commodity interests. Section 4(d) of the Act delineates the so-called allowable, but non-conforming, uses. These uses are legal, yet incompatible to the purposes of the Act. These exceptions meant that mining, prospecting, grazing, the development and maintenance of water and power projects, transmission line construction, and attendant road building could be permitted within designated wilderness.

The compromises which led to the passage of the Act had far reaching consequences, especially in the management of wilderness areas, because the conflicts between allowable nonconforming uses and the goal of wilderness preservation were often difficult to reconcile.

Aside from the problems stemming from the disparity between allowable nonconforming uses and the goal of wilderness preservation, other ambiguities exist within the Act and lend a cloak of obscurity to its intent. The most problematic of these ambiguities involves the fundamental precept of the Act. What exactly is wilderness?

Wilderness Defined. The early influences of Aldo Leopold and Robert Marshall, in their attempt to answer this question, helped to fashion the legal definition of wilderness used today. Leopold defined wilderness as "a continuous stretch of country preserved in its natural state....big enough to absorb a 2-week pack trip, and kept devoid of roads, artificial trails, cottages, or other works of man" (Leopold 1921).

To Bob Marshall wilderness was "a region which contains no permanent inhabitants, possesses no possibility of conveyance by any mechanical means" and "preserves as nearly as possible the primitive environment" (Marshall 1930).

These sentiments are reflected in the legal definition of wilderness as provided in section 2(c) of the Wilderness Act.

> A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable....

A careful reading of section 2(c) reveals two definitions of wilderness. The first part, up to the number (1), places wilderness on the pristine end of an "environmental modification continuum" (Hendee et al 1977). 'True' wilderness, it appears, is an area unsullied by the evidences of modern man. But then the mood changes as 2(c) goes on to qualify wilderness as an area which need only appear to have been affected by the forces of nature. The imprint of man may be noticeable, but not substantially so.

The wording of 2(c) vacillates between the ideal of virgin naturalness and the reality that some human impacts will be unavoidable. This dichotomy has led to pronounced difficulties in the process of designating wilderness areas because section 2(c) presumably sets forth the criteria from which wilderness suitability is measured (McCloskey 1966). But with criteria which may be construed as mutually exclusive, it is not surprising that wilderness designation proceedings subsequent to the 1964 Act have been fraught with contention. Most of this contention is attributable to the so-called 'purity argument', an offspring sprung from the loins of the Wilderness Act with the aid of Forest Service obstetricians.

The Purity Argument and Wilderness Suitability

The 'purity argument' is predicated on the notion that only areas that evidence almost no sign of man's impact are eligible for inclusion into NWPS (Clusen, Scott 1977).

The Forest Service, charged by the Wilderness Act with the responsibility to review all roadless areas of 5,000 acres or more within its domain and to make recommendations to Congress on the suitability or nonsuitability of these areas for wilderness, needed to define its administrative direction for this task. Naturally, they went to the Wilderness Act for guidance.

The translation from legislative language to administrative policy can often be difficult. Most documents designed to guide the actions of men, from the Bible to the Camp David accords, are open to varying, even contrasting, interpretations. The Wilderness Act is no exception.

The Forest Service took its administrative stance from an interpretation of section 2(c) of the Act. This section, as already discussed, provides two definitions of wilderness. The ideal definition is tempered by a more realistic one which does accept some signs of man but does not qualify the degree to which these signs are tolerable. After all, just what does 'substantially unnoticeable' mean? The Forest Service decided it meant almost completely unnoticeable. Wilderness had to be 'pure'.

At the heart of the "purity argument" is the notion of foregone opportunity costs. Wilderness should be of the highest quality in order to justify the expense attached to taking land out of multiple-use utilization. According to Richard Costly, former Director of Recreation for the Forest Service, "National Forest wilderness would have to be genuine uncompromised wilderness or it would not be worth what it was going to cost" (Costly 1972). Costly went on to state that the Forest Service could have:

> winked at questionable things (practices or installations) in areas some wanted classified as wilderness. It could have permitted magnificient second growth forests in the Southern Appalachians to blind it to old rotting stumps and railroad grades....Yes, it could have gone along and made it easy to make a diluted, watereddown, and specious "wilderness"....but it did not believe this. And it did not want to prostitute its beliefs.

(Ibid).

Many conservationists (Behan 1971, Foote 1973, Trueblood 1975, Church 1977) contend that the Forest Service was misinterpreting the

Wilderness Act and was mainly interested in not prostituting its belief that National Forest lands should be developed for their commodity resource potential and not locked away for recreation. Clusen and Scott argued that the Forest Service adhered "too strictly to 'pure' wilderness standards as a way of preventing many areas from receiving meaningful consideration" (Clusen, Scott 1977), and Congress demonstrated agreement with this sentiment.

For example, when Montana's Mission Mountains were proposed by the Forest Service for inclusion into the NWPS in 1971, 2,018 acres which had been part of the Mission Mountains Primitive Area were excluded from the wilderness. This acreage had been roaded and salvage logged in the mid-fifties in order to control an Engleman spruce bark beetle epidemic (personal correspondence letter from Cal Tasseneri). The Forest Service claimed that the impact from the salvage operation precluded the suitability of this land for wilderness. However, the House Interior Committee disagreed stating that "the exclusion of these...areas would be more disruptive to the management of the area than their inclusion not withstanding the evidence of some non-conforming past use" (House Report 93-989).

The decision to include these impacted lands within the wilderness was the beginning of the end for the 'Purity Argument'. But the real coup came in 1975 when Congress passed The Eastern Wilderness Act, a piece of legislation which radically changed the suitability criteria for wilderness.

The Eastern Wilderness Act: Suitability Defined

The Forest Service had long claimed that because of size and past impacts, almost no lands east of the 100th meridian could qualify as wilderness under the terms of the 1964 Act (Hendee et al 1977). But proponents of eastern wilderness argued that the regenerative capacity of eastern ecosystems minimized these impacts and rendered them 'substantially unnoticeable'. Since the Forest Service would not budge on this issue, special legislation was introduced to provide for the inclusion of eastern lands within the wilderness system. The Forest Service opposed this bill, S316, arguing that the inclusion of these areas within NWPS would depreciate the entire system and countermand the Wilderness Act.

The ensuing Congressional debate on S316 provided much clarification on the intent of the Wilderness Act regarding suitability. In fact, a main purpose of the hearings on S316 was to clear the haze of misunderstanding between the Forest Service's 'purity' policy and the Congressional interpretation of the Wilderness Act. Mark Hatfield, U.S. Senator from Oregon considered the issues surrounding S316:

> very similar to those which are raised in dealing with wilderness anywhere--not just in the east. The first of these issues has to do with the interpretation of the 1964 Wilderness Act. I believe that the Forest Service has been mistaken in its administration of the Act and I am hopeful that these hearings will serve to clarify its intent (Senate Record No. 92-467).

As an alternative to S316, the Forest Service proposed that different, more lenient criteria than that provided in the Wilderness

Act be established to apply to eastern wild lands, and that these lands be included in their own system separate from NWPS. During the hearings Senator Church asked Forest Service Chief McGuire if such an ammendment would, "confirm the purity-train, so-called, that you have been applying as a test for eligibility of given areas to become wilderness?"

McGuire answered in the affirmative and added that the inclusion of eastern lands in NWPS would change the intent of the Wilderness Act (Ibid).

Church disagreed, citing section 2(c) of the Wilderness Act as providing that areas once impacted by man, but since healed, could be included within the wilderness system.

McGuire countered that "If you extend it (the Wilderness Act) to the East, you get half the forest system qualified as wilderness" (Ibid).

This comment prompted Senator Haskell to reply:

> I think the cat is now out of the bag. I couldn't understand until you made your last remark, how you could possibly interpret your definition of wilderness the way you do. What I gather now is that you are afraid all the area that qualifies under the definition will be designated as wilderness areas.

(Ibid).

It seemed to the Senators that the Forest Service was using an administrative interpretation of the Wilderness Act as a means of preventing wilderness designation of lands they thought would serve better in non-wilderness use. Chief McGuire was reminded that it was

the job of Congress to make decisions regarding the suitability of lands for wilderness.

On January 3, 1975, President Ford signed Public Law 93-622; it was enacted:

> To further the purposes of the Wilderness Act by designating certain acquired lands for inclusion in the National Wilderness Preservation System...

The passage of the eastern Wilderness Act had numerous implications for the National Wilderness Preservation System. The foremost of these was that wilderness no longer had to conform to a strict standard of purity. The appearance of wilderness, with man's work substantially unnoticeable, became a true determinant of wilderness quality. Also, since eastern lands became part of NWPS, the standards by which these lands were judged could also be applied in the West. And finally, due to the small size, previous impacts of man, and proximity to large population centers of many eastern wilderness areas, a need arose to develop management strategies to minimize these adversities (Hendee et al 1977). The Wilderness Act of 1964 provided no precise direction on management of wilderness areas, nor did the Eastern Wilderness Act. It was not until the passage of the Endangered American Wilderness Act in 1978 that management policy was legislatively defined.

The Endangered American Wilderness Act: Management Defined

The Endangered American Wilderness Bill of 1977 sought to classify more than 20 new areas as wilderness. These were areas of 'de facto'

Wilderness which the Forest Service had either dropped from wilderness consideration, or failed to consider in the first place (House Report No. 95-540). Again the 'purity argument' was employed as an admission standard, but more importantly as a management standard. Much of the opposition to the bill was based on a perception of what is, and what is not, permissible in wilderness areas under the provisions of the 1964 Act (Ibid). Opponents feared that the inclusion of these lands within NWPS would preclude wildfire suppression, trail maintenance, sanitary facilities, and would reduce hunting and fishing opportunities because fish and game enhancement programs would be curtailed (Hendee et al 1977). To more clearly define the do's and don'ts of wilderness management, hearings on the bill pointedly addressed these issues.

Prior to this clarification the Forest Service took a hard line stance on their management philosophy, citing section 4(c) of the Wilderness Act as dictating this position:

> Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act, there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

Section 2(c) also influenced the Forest Services's management philosophy. This part of the Act stated that a wilderness is 'without

permanent improvements', without substantial evidences of 'man's work', and managed 'so as to preserve its natural conditions'.

Management policy, based on the 'purity' concept was manifested in many ways. Among the most controversial was the burning of old cabins within wilderness areas. Many homesteads, miner's and trapper's cabins were razed so as to remove the imprint of man's work. Also, in seeming compliance with the proscription on structures, the Forest Supervisor of the Flathead Forest in Montana, in 1973, ordered outfitters to remove all caches, corrals, and hitchracks from the Bob Marshall Wilderness (Trueblood 1975). Outfitters contested this administrative decree and cited their own section of the Wilderness Act, section 4(d) (5): "Commercial services may be performed within wilderness areas designated by this Act to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the area". Caches, corrals, and hitchracks, claimed the outfitters, were necessary to realize this recreational purpose.

Another conflict surfaced in 1976 when the Selway-Bitterroot Wilderness management plan was produced, a section of which addressed fish stocking. Even-though the Wilderness Act gave jurisdiction to State agencies with respect to fish and game (section 4(d) (8)), the management plan called for; (1) no fish planting where there was no history of planting, (2) no introduction or continued stocking of nonnative species, and (3) no planting of barren lakes. Again it appeared that the Forest Service was exceeding its authority (Trueblood 1975).

A conflict of particular sensitivity related to the installation of facilities to protect the wilderness resource. For example, when Mt. Jefferson Wilderness was created, the Forest Service moved quickly to remove outdoor toilets from Marion Lake, a very heavily used area. The Service claimed that these were "wholly inconsistent with a wilderness experience" (Senate Hearing Report No. 92-467). However, high concentrations of randomly deposited human waste may be inconsistent with a wilderness experience as well, not to mention water quality and public health.

From the conflicts resulting from these situations, legislators began to recognize a need to further define the management intentions of the Wilderness Act. Frank Church addressed this concern in committee hearings on the Endangered American Wilderness Act:

> Time after time when we discuss wilderness, questions are raised about how developed an area can be and still qualify as wilderness--or what kind of activities within a wilderness are consistent with the purposes of the Wilderness Act. I believe that the agencies are applying provisions of the Wilderness Act too strictly and thus misconstruing the intent of Congress as to how these areas should be managed....There is a need for a new rule of reason in interpreting the Act....The test is not whether necessary management facilities are prohibited; they are not. The test is whether they are necessary.

(Church 1977).

The Assistant Secretary of Agriculture, Rupert Cutler, was summoned to the committee hearings to give his assessment on wilderness

management. He set the tone for his testimony thusly:

> We....have an opportunity to include in the Wilderness System lands not entirely free of the 'marks of mankind' but fully capable of providing, in the long term, wilderness benefits to many people. In considering such lands for wilderness designation or study, we will look closely at the features or uses traditionally considered to be nonconforming. We will be more innovative in 'managing around' the objectionable features to minimize their impacts and insure optimum wilderness quality.

(Clusen, Scott 1977).

Cutler went into specifics when queried by Congressman Weaver of Oregon (House Report 3454). Latrines were to be provided for the protection of the resource, but not for the convenience of the user. Hitchracks, where needed to prevent resource damage were allowed as long as they be placed away from main trails, streams, lakes, campsites and focal points of interest. Fish stocking and aerial planting of spawn could continue where these activities had been established prior to wilderness designation. The introduction of animals was permitted, even with the use of mechanical transport, if the species was or had been native to the habitat. Trails, trail signs, and necessary bridges were permitted. And cabins could remain within wilderness areas if they were deemed needed to protect the public or the resource.

Other Legislation

Although the Eastern Wilderness Act and the Endangered American Wilderness Act provided the major bench mark legislation in solidifying

a consensus on the intent of the Wilderness Act, they did not iron out all the wrinkles. The Eastern Wilderness Act defined suitability. The Endangered American Wilderness Act clarified permitted management actions. The next hurdle for interpretation related to the allowable but non-conforming uses listed in section 4(d) of the Act, such as grazing and mining. Because these uses by their nature diminish the quality of wildness, management conflicts were inherent in the provisions of 4(d).

Grazing. Section 4(d) (4) (2) of the Wilderness Act provides "the grazing of livestock, were established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture".

Despite this authorization, many permittees became upset with the administrative policies governing their grazing rights in wilderness. Arguing that National Forest Grazing policies were subject to discretionary and varying interpretations not in accord with section 4(d) (4) (2), and that in fact "administrative policies were acting to discourage grazing in wilderness, or unduly restricting on-the-ground ativities necessary for proper grazing management", many ranchers demanded that the Wilderness Act be ammended to clarify the intentions of Congress (House Report 96-1126).

Legislators did not feel that an ammendment to the Wilderness Act was justified because the language of the Act clearly permitted grazing. They did, however, believe that a clarification of grazing

policy guidelines was warranted and addressed this topic in House Report 96-1126, "Grazing in National Forest Wilderness Areas". These guidelines appear in the Colorado Wilderness Act of 1980, the Central Idaho Wilderness Act of 1980, and in the BLM's Wilderness Management Policy 1981 and their application is meant to apply to all grazing lands in the NWPS (BLM Wilderness Management Policy 1981).

Two House Committee on Interior and Insular Affairs Reports (95-620 and 95-1321) set the stage for the specific management direction of H.R. 96-1126: "To clarify any lingering doubts, the committee wishes to stress that this language (section 4(d) (4) (2)) means there shall be no curtailment of grazing permits or privileges in an area simply because it is designated as wilderness....grazing in wilderness areas ordinarily will be controlled under the general regulations governing grazing of livestock on National Forests".

H.R. 96-1126 addressed the particulars. All supporting facilities for grazing management including fences, water developments, and line cabins could be maintained. Natural materials, to blend with the environment, were not required in the replacement or reconstruction of facilities. New construction of range improvements and facilities was permissible, although they should be for the protection of the resource rather than to accomodate increased stocking. And, motorized equipment could be used, including backhoes to maintain stock ponds and pickup trucks for fence repair and salt distribution. Furthermore, vehicles could be used to rescue sick animals, or provide feed in emergency situations.

Given the proscription on motorized use in section 4(c) of the

Wilderness Act, this interpretation of 4(d) (4) (2) seems incredibly liberal. However, H.R. 96-1126 does not give Carte Blanche authority for ranchers to buzz around in wilderness areas in four wheel drives. Permission remains contingent upon approval by the Regional Forester, who is also charged with the responsibility of protecting the wilderness 'unimpaired' for future generations of Americans.

Mining. Realizing the incompatibility between mining and wilderness, whether to allow new mining within wilderness areas was a major topic of debate between legislators hashing out the Wilderness Bill. However, proponents of the Bill had no choice but to accept provisions allowing mining because Wayne Aspinall, representative from Colorado (a state richly endowed with mineral deposits) and Chairman of the House Committee on Interior and Insular Affairs, had the power to withhold the Bill from floor debate pending a compromise on this matter.

The compromise settled upon provided that prospecting, exploration, and claiming of mineral rights could continue until 1984. After December 31, 1983 no new claims could be established, but mineral extraction on existing claims could continue.

Mining and wilderness are strange bedfellows indeed. The Forest Service recognizes that forest officers charged with administering mining within wilderness "are faced with the task of serving two masters which may be mutually exclusive" (Title 2300 Recreation Management U.S.F.S. policy 2323.7). Senator Hatfield echoed these sentiments, remarking that "one cannot help but be shocked" at the special provision allowing mining (section 4(d) (3)) which "leaves the door wide

open for mining which can destroy the very purpose for which [wilderness] was created (Senate Hearing Report No. 92-467).

In a 1973 court case involving proposed copper and nickel prospecting within the Boundary Waters Canoe Area, the presiding judge, Philip Neville, challenged section 4(d) (3) stating:

> It is clear that wilderness and mining are incompatible....A mineral resource development cannot proceed without making use of the surface of the land. Any use of the surface for exploration or extraction becomes an unreasonable use because the surface is no longer wild....There is an inherent inconsistency in the Congressional Act and it falls in the lap of the court to determine which purpose Congress deemed most important and therefore intended. In this court's opinion, the wilderness objectives override the contrary mineral right provision of the statue.

(Sumner 1973).

Judge Neville's opinion did not change the statutory authority allowing mining within wilderness areas, and it seems unlikely in light of the 'energy crisis' that mining will be permanently prohibited within wilderness (Haight 1974).

Some wilderness legislation has affected the status of mining within NWPS. For instance, the Eastern Wilderness Act withdrew all lands, designated wilderness with its passage, from mineral entry (Hendee et al 1977). The Hells Canyon National Recreation Area Act also prohibited all new mining in the wilderness.

However, mining activities have been encouraged as well. The Endangered American Wilderness Act extended the deadline to file

mineral claims within its designates from 1984 to 1988.

A very interesting, and perhaps prophetic approach to mining management within wilderness is offered by the Central Idaho Wilderness Act of 1980 and in the reports accompanying this Act. Included in the River of No Return Wilderness, designated by the Act, is a 50,000 acre parcel known as Clear Creek. This parcel has the distinction of containing potentially significant deposits of cobalt, a strategic metal. Cobalt is used extensively in the defense industry. In fact, each engine on a F-15 and F-16 jet fighter contains 900 pounds of cobalt (House Report No. 96-838 Part I). Presently, 100% of this metal is imported, mostly from Zaire and Zambia, sources which may be undependable for the United States. But this supply anxiety was partially assuaged with the discovery of the Blackbird Mine. This mine contains enough estimated cobalt to supply 20% of the nation's demand over the next quarter century (Ibid). The mine is located six miles across the wilderness boundary from Clear Creek and it is quite likely that cobalt deposits extend to Clear Creek. Three proposals were examined to deal with the lure of cobalt in the wilderness.

It was first proposed that the entire Clear Creek area be excluded from the wilderness so as not to crimp mining activities. However, the issue was complicated with the fact that Clear Creek is a prime and indispensible habitat for the most productive bighorn sheep herd in Idaho; a herd which is extremely valuable as a source of animals to restock historic sheep range in the west. According to the Idaho Department of Fish and Game, "Nonwilderness multiple use of this historic range could be most disruptive" (Ibid). Legislators decided

therefore to keep Clear Creek within the wilderness.

The second proposal was intended to protect the wilderness by stipulating the following mining restrictions:

(1) All mining operations had to be conducted underground.

(2) Access to mines had to be underground from outside the wilderness.

(3) No ground disturbance would be allowed within the wilderness except ventilation shafts and other safety features.

(Senate Report on P.L. 96-312).

A compromise, which became law, enacted the creation of a "Special Mining Management Zone--Clear Creek". Section 5(d) (1) of the Act decrees that "all prospecting and exploration for, and development or mining of cobalt and associated minerals shall be considered a dominant use of such land and shall be subject to such laws and regulations as are generally applicable to National Forest System lands not designated as wilderness...". Further, "The patentee shall have the right to use as much of the surface as reasonably necessary for the mining, removal, extraction, or beneficiation of the mineral deposits located therein." (section 5(b)).

As for the bighorns, the Secretary of Agriculture was instructed to take measures to minimize any adverse impacts that the mining and processing of cobalt would have on the sheep.

Structures. Section 4(c) of the Wilderness Act directs that there should be no structure or installation within any wilderness area "except as necessary to meet minimum requirements for the administration of the area for purposes of this Act". The policy forged

from this language resulted in the demolition of many old cabins as a means of restoring lands to their natural condition. The cultural and historic value of these structures was not considered. The Forest Service could not accept "the claim that the historical value of an old stockman's cabin in the California Sierras was somehow more important than the Act's proscription of permanent structures" (Costly 1972).

This 'put them to the torch' policy led to an ear spliting outcry from the public whose vituperation was clearly audible in the halls of Congress. Congress responded to these complaints in the Central Idaho Wilderness Act which provides new guidelines in regard to structures.

Section 8(3) (E) (b) (1) of this Act directs that an inventory be conducted of the "ranch, homestead, trapper and other cabins, and structures" to determine which of these should be stabilized, restored, maintained, or removed.

A policy shift which goes from razing to restoring covers a lot of ground. This move was made possible by incorporating provisions of the Archaeological Resources Protection Act and Historic Preservation Act within the Central Idaho Wilderness Act (section 8(a) (1)), and although these provisions may be site specific to the River of No Return Wilderness, other wilderness areas intend to follow these new guidelines. The Eagle Cap Wilderness, for example, will be inventoried for historic sites and structures which may warrant maintenance or restoration in order to insure that these 'marks of man' remain noticeable for years to come (Bruce Womack personal

communication).

The Alaska National Interest Lands Conservation Act of 1979 contains language which not only allows existing cabins to be retained and maintained in wilderness areas, but authorizes the building of new cabins as well. New cabins may be built for purposes of public safety only (H.R. 96-97).

The Alaska Act even goes farther in permitting new structures. Because fisheries resources are so important to the Alaskan economy, the Act authorizes that fish ladders, spawning channels, and the construction of fish hatcheries may be undertaken.

Motorized and Mechanical Transport. The 1964 Wilderness Act is fairly explicit in it's prohibition of motorized and mechanical transport (section 4(c)), although the special provisions do make exceptions for these uses. The use of motorboats and landing of airplanes could continue if such use was established prior to the passage of the Act. Motorized access to mining claims and private property within wilderness is conditionally authorized. And, any measures necessary to control fire, disease, and insect outbreaks are permitted.

Legislation since the 1964 Act has tended to provide a less restrictive approach to the use of motorized and mechanical transport. For example, Public Law 95-495 pertaining to the Boundary Waters Canoe Area (1978) permits snowmobile use in certain areas. The Colorado Wilderness Act also approved snowmobile use for one area (section 111(g)), providing that the Secretary of Interior determines

that no significant impact to wildlife will result. Grazing in National Forests (H.R. 96-1126) allows grazing management practices to include backhoes and pickup trucks. The Central Idaho Wilderness Act authorizes Idaho State Department of Fish and Game employees vehicular access within the Clear Creek Special Mining Management Zone for the purpose of managing bighorn sheep. And in Alaska, vehicles may be used in the construction and maintenance of fish hatcheries and other aquaculture facilities.

Mechanical transport within wilderness, such as the use of bicycles, hang gliders, wheel barrows, wagons, and game carts have been prohibited in the Code of Federal Regulations. One exception is in the Boundary Waters Canoe Area where canoe carts are allowed at some portages. Another exception seems apparent in the language of the Rattlesnake National Recreation Area and Wilderness Act of 1980. Section 1(a) (1) includes bicycling as one of the recreational values of the area.

Fire. The suppression of wildfire has probably had a more profound effect in altering natural eco-systems than any other factor (Title 2300 Recreation Management U.S.F.S. policy 2324.2). Fire, like rain and sunlight, is an indispensible element of natural systems, and without it the retention of a primeval character in wilderness is not possible (Heinselman 1970). Natural fire has been part of wilderness environments since creation, greatly influencing the type of flora and fauna found in an area.

Man's efforts to bannish fire have led to an accumulation of fuels (Stiger 1981). Combustible organic materials, such as fallen trees and pine needles, are, in a natural system, periodically cleared away by fire. In the absence of fire, these fuels build up. When the inevitable errant spark ignites these amassed fuels, a fire of devasting proportions may result.

Land use managers are now acutely aware of both the beneficial role of fire in perpetuating natural eco-systems, and the dangers inherent in relentless suppression. It has become desireable to restore the natural fire regime to wilderness areas (Ibid). Two methods are available to facilitate this goal.

One method is to allow 'safe' lightening ignited fires to burn. These natural fires would be monitored but allowed to burn unless they threatened life, private property, or forest lands outside the wilderness (Hendee et al 1977). Many wilderness areas presently utilize this method (Ibid).

Another way to reinstill the natural fire regime is to imitate it with man caused prescribed burns. A careful study of the fire history of an area will reveal the frequency and intensity of past fires so that man would be able to duplicate them (Heinselman 1970). A major advantage of this approach is that fuel accumulations could be carefully restored to presuppression levels without causing an intense burn which could decimate an area (Dick Mangan personal communication). Some Wilderness Management Plans attest to the desireability of instigating man caused prescribed burning (Hells Canyon NRA Fire Plan). The BLM's Wilderness Management Policy accepts

this human manipulation if such action will:

(1) reintroduce or maintain the natural condition of a fire dependent ecosystem;

(2) restore fire where past strict fire control measures had interfered with natural, ecological processes;

(3) perpetuate a primary value of a given wilderness; or

(4) perpetuate a threatened or endangered species.

House Report 96-1223 which accompanies the California Wilderness Bill (H.R. 7702) says of controlled burning, it "initiates a process of nature in a prescribed or planned manner and may have the advantage of producing fewer long term adverse impacts (and possibly beneficial impacts) on wilderness values than would the construction of roads or similar intrusions" traditionally used to suppress wildfire.

Conclusions: The Direction of Management

Wilderness is an idealized conception of nature, containing in it's purist form no evidence of modern man. It is unlikely that this type of wilderness exists today. Like pop tops under the rodeo bleechers the works of man are probably ubiquitous. If DDT is present in penquins along the Weddell Sea, then it seems likely that Kilroy has in some manner carved his initials on every square inch of the earth's surface. Wherever man is found, "he tends to break the orderly succession of life forces and make use of the stored wealth of plants, animals, and soils for his own ends (Ti-Yu Tuan 1971)." Yet for practical purposes, there remain areas where the imprint of man's work is essentially non-existent. In the United States these areas are revered by many people. Wilderness to them is a model of perfection and ecological order--an order which is identified by the absence

of man and his works (Garber 1976).

These two conflicting influences, the tendency to utilize resource wealth and the appreciation of pristine naturalness, compete for favor in wilderness management policies.

It's a problem. Wilderness is the clay from which civilization is sculpted. The utilization of natural resources is a necessary condition for the existence of civilization, yet results in the diminution of some wilderness qualities. To the wilderness purist, wilderness should remain sacrosanct, free from the probings and plunderings of vile commercialism. But to the utilitarian, wilderness is waste.

As is the wont of the American way, the Wilderness Act of 1964 sought to reconcile these competing passions through compromise. Areas could be preserved as wilderness, while grazing and mining were allowed to continue.

To pave the way for commodity utilization within NWPS lands, it was necessary to legally define wilderness as something less than pristine. Section 2(c) provides this definition. For although it endorses the ideal of pristine wilderness, it also accepts the reality that some modification is unavoidable and must be tolerated. But the language of 2(c) is particularly significant in how it defines the suitability criteria for wilderness. A wilderness area "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable". This indicates that the perception of wildness is as important as the substance of wildness. A wilderness need not have been affected by the forces of

nature, but only appear so. Man's works do not disqualify an area from wilderness status, but they should be hidden so as not to disrupt the wilderness mood.

According to McCloskey "wilderness is valued more as a mental image than as a physical reality.....the public may be less interested in the physical reality of wilderness than in the psychology of its representation" (McCloskey 1966).

Aldo Leopold realized the importance of managing for perception. He compared wilderness management to an opera production where in both instances the manager provides (or maintains) a certain setting to elicit the desired mood (Leopold 1969).

The management of wilderness to maintain a perception has taken on increasing importance since 1964 because interpretations of the Wilderness Act regarding allowable human influences have tended to become more liberalized. Initially, when the 'purity argument' was the buttress of wilderness management philosophy, the guiding principle was that you could either have wilderness or something else (i.e. marks of man), but you could not have wilderness and something else (Costly 1972). Then came the passage of the Eastern Wilderness Act in 1974. Lands which had once been thoroughly impacted by man, but since healed, became statutorily eligible for the NWPS. This legislation was significant because it affirmed the notion that the perception of wildness was sufficient to include an area in the wilderness system.

The Eastern Wilderness Act had another important implication. Because many of the areas designated under this Act bore the scars of

past impacts, were small in size, and close to major population centers, management problems, never before dealt with, came to the fore (Hendee et al 1977). Guidelines to deal with these problems were formulated in Congressional hearings on the Endangered American Wilderness Bill. These discussions authorized additional works of man (e.g. pit toilets) to be tolerated in wilderness areas if necessary to protect the wilderness resources.

A comparison of corresponding sections of the Wilderness Act, the Eastern Wilderness Act, and the Endangered American Wilderness Act is very revealing of the trend wilderness management has taken. In the Wilderness Act section 2(a) provides that wilderness areas are to be 'preserved' and 'protected' to assure that growing mechanization and expanding settlement do not occupy all areas of the United States. It's kindred section of the Eastern Wilderness Act (2(a)(3)) states that development is inconsistent with the 'protection, maintenance, and enhancement' of wilderness areas. And, the Endangered American Wilderness Act, section 1(a) (3), reads that development is inconsistent with "the protection, maintenance, restoration, and enhancement of [the] wilderness character".

An important broadening of the meaning of wilderness is explicit in this language. In 1964 a wilderness area simply had to be preserved and protected to keep it wilderness. In 1974 wilderness characteristics could be 'enhanced'. And in 1978 these characteristics could be 'restored'. Wilderness had come from something which only nature could create, to that which man could destroy and then restore. In a

sense then, wilderness has become a renewable resource.

With a philosophy established which accepts that the perception of wildness is at least as important as the real McCoy, and therefore that wilderness characteristics are restorable, it becomes easier to allow resource development within wilderness areas. In light of the 'energy crisis' and a desire to free ourselves from a dependence on foreign mineral supplies, there has been increased pressure to open up wilderness areas to development. By and large this temptation has been resisted. But with a changing philosophy which renders wilderness renewable, changing policies will result. If development no longer necessarily imparts lasting ruination to wilderness quality, if the damage is but temporal, then why not have our cake and eat it too?

It cannot be denied that wilderness is a luxury. The wilderness system was established "for the use and enjoyment of the American people" (Wilderness Act section 2(a)). Its main purpose is to facilitate a certain type of recreation.

Few other countries in the world enjoy the level of affluence which allows for the secession of vast tracts of land from the national economy. It seems inevitable that as resources become scarce, with a concomitant diminishment of affluence, man will increasingly invade the wilderness sanctum for economic gain.

To put off this day of reckoning management has attempted to increase the utility of wilderness.

Wilderness legislation passed since 1964 evidences a trend to maximize all wilderness benefits, including economic ones. In some

instances, the ideal of pristine wilderness has become subordinate to perceived economic imperatives. Restrictions on grazing management have been reduced, the development of mineral resources has become the dominant use of one area, and fish hatcheries can be built in Alaskan wilderness.

Strictures have also been lessened to allow for greater realization of recreational benefits. Fish stocking and big game management programs have been instigated to facilitate sport rather than to pereptuate natural systems. Snowmobile use has been allowed in some areas. Cabins can be restored to preserve cultural and historic values. And, in Alaska cabins can be built where needed to protect the public.

No implication is intended here to suggest that any activity allowed in one wilderness area, be it mineral dominance or bicycle riding, will necessarily set a precedent in another area. Most legislation since 1964 was meant to apply site specifically. Still, legislative interpretation, because it sets the guiding philosophy and defines policy, does not exist in a vacuum. It is likely that a decision intended for one area will influence decision making in another. For example, House Report No. 96-617 on the Colorado Wilderness Bill cites the use of motor vehicles to maintain water facilities in the Desolation Wilderness as justification to do the same in Colorado.

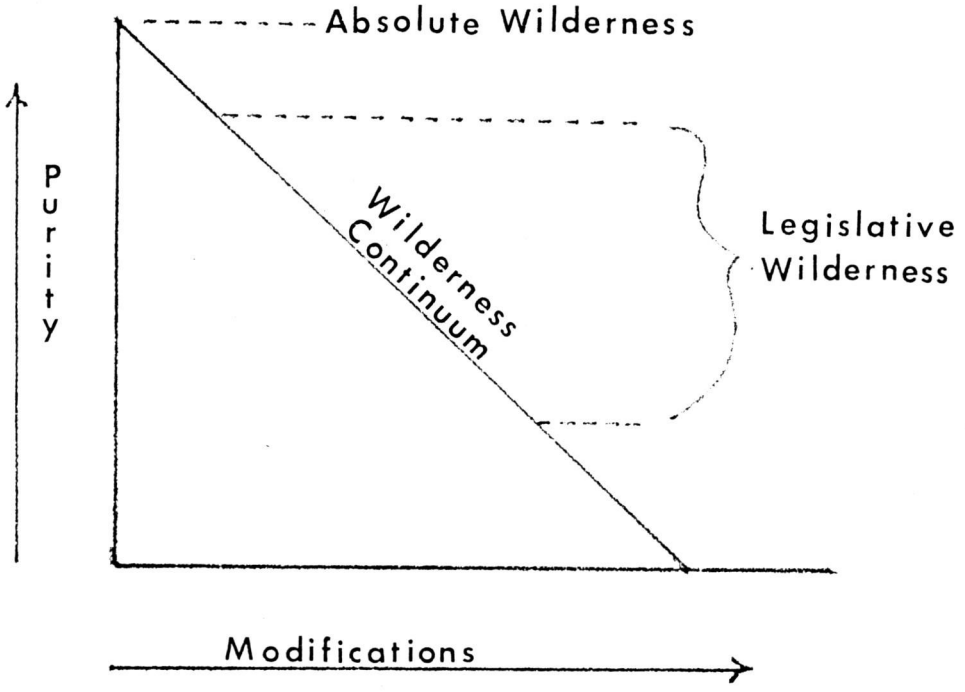
To prevent the use of precedents from degrading all wilderness areas to a "lowest common denominator", it is desirable to adopt the management principle of nondegradation. Under this principle wilderness

areas will be managed to protect, preserve, or improve on the conditions which prevailed at the time of designation.

In the case of nonconforming uses, such as mining, the nondegradation principle should apply as the standard for determining the condition to which the area shall be restored.

By employing the principle of nondegradation a continuum of wilderness quality from the nearly pristine to the substantially modified, will result. While some areas will be mutts in the wilderness system, others will be a pedigree of purity and reflect the 'highest' goals of wilderness preservation (See Fig. 1).

FIGURE 1


Absolute Wilderness
Purity
Wilderness Continuum
Legislative Wilderness
Modifications

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